CLAIMS

1. A process for manufacturing elastomeric components of a tyre (3) for vehicle wheels comprising the steps of:

- feeding a continuous elongated element (20) from a delivery member (19) for application of said elongated element (20) onto a building support (18), by exerting a feeding pressure inside said delivery member (19);
- giving the support (18) a rotatory motion around a geometrical rotation axis (X-X) thereof, so that the elongated element (20) is circumferentially distributed on the support (18);
- carrying out controlled relative displacements for transverse distribution between said support (18) and delivery member (19) to form a tyre (3) component (9, 12, 13, 14, 15, 16, 17) with said elongated element (20) which is defined by a plurality of coils (20a) laid in a preestablished deposition pattern depending on a predetermined cross-section outline to be given to said component (9, 12, 13, 14, 15, 16, 17);
- stopping said step of feeding said elongated element (20) when formation of said component (9, 12, 13, 14, 15, 16, 17) has been completed;
- exerting a counter-pressure inside said delivery member (19) following said stopping step.

2. A process as claimed in claim 1, wherein said delivery member (19) comprises an extrusion screw (22), a gear pump (23) associated with said extrusion screw (22) downstream of the latter and an outlet die (26) associated downstream of said gear pump (23), said gear pump (23) having a rotation direction of its own during said feeding step.

3. A process as claimed in claim 2, wherein when said counter-pressure is exerted said gear pump (23) carries out a counter-rotation with respect to said rotation direction during said feeding step.

4. A process as claimed in claim 2, wherein said stopping step takes place by stopping the movement of said gear pump (23) in a period of time included between about 0.1 and about 8 seconds.

5. A process as claimed in claim 2, wherein during said stopping step, pressure downstream of said gear pump (23) decreases until a value included between about 150 and about 400 bars.

6. A process as claimed in claim 4, wherein said gear pump (23) following the stopping step keeps at a standstill over a period of time included between about 0.1 and about 3 seconds.

7. A process as claimed in claim 6, wherein pressure downstream of said gear pump (23) decreases until a value included between about 150 and about 200 bars while said gear pump (23) is at a standstill following said stopping step.

8. A process as claimed in claim 3, wherein said counter-rotation of said gear pump (23) is carried out within a period of time included between about 1 and about 5 seconds.

9. A process as claimed in claim 3, wherein during said counter-rotation, the gears of said gear pump (23) rotate through an angle included between about 10° and about 40°.

10. A process as claimed in claim 3, wherein pressure downstream of said gear pump at the end of said counter-rotation is included between about 10 and about 50 bars.

11. A process as claimed in claim 1, wherein a new step of feeding said elongated element (20) starts after a time gap included between about 1.2 and about 16 seconds from stopping of the preceding feeding step.

12. A process as claimed in claim 1, wherein the time gap included between stopping of a feeding step and starting of the subsequent one substantially corresponds to the time required for positioning of a subsequent tyre under working close to the same delivery member (19).

13. A process as claimed in claim 1, wherein said building support (18) is a substantially rigid toroidal support.

14. A process as claimed in claim 1, wherein said building support (19) is a support having a varying surface configuration.

15. A process as claimed in claim 14, wherein said surface configuration varies from a substantially cylindrical one to a substantially toroidal one.

16. A process as claimed in claim 1, wherein said building support (18) has a substantially cylindrical outer surface.